AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. - 3. (Canceled)

4. (Previously Presented) An electrical device for generating a pseudo random noise (PN) output sequence (Z_t) comprising:

a sequence generator to output a plurality of sequence values (X_{2i}, X_{2i+1}) based on a step control signal (S_t); wherein the plurality of sequence values is two;

a control and selection system coupled to the sequence generator adapted to select one of the plurality of sequence values (X_{2i}, X_{2i+1}) from the sequence generator based on a select value (M_t), wherein the select value (M_t) is provided based on a clock control value or signal (C_t) and a previously generated select value(M_{t-1}); wherein the select value (M_t) is calculated as $M_t=(C_t+M_{t-1})$ MOD 2; and

a step control of the control and selection system adapted to provide the step control signal (S_t) to the sequence generator, wherein the step control signal (S_t) is provided based on the clock control value or signal (C_t) and the previously generated select value (M_{t-1}) wherein the step control signal (S_t) is calculated as $S_t=(C_t+M_{t-1})$ DIV 2.

5. (Previously Presented) An electrical device for generating a pseudo random noise (PN) output sequence (Z_t) comprising:

a sequence generator adapted to output a plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) based on a step control signal (S_t) wherein the plurality of sequence values is N, where N is at least 3;

a control and selection system coupled to the sequence generator adapted to select one of the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) from the sequence

generator based on a select value (M_t), wherein the select value (M_t) is provided based on a clock control value or signal (C_t) and a previously generated select value (M_{t-1}); the select value (M_t) is calculated as $M_t=(C_t+M_{t-1})$ MOD N; and

a step control of the control and selection system adapted to provide the step control signal (S_t) to the sequence generator, wherein the step control signal (S_t) is provided based on the clock control value or signal (C_t) and the previously generated select value (M_{t-1}) the step control signal (S_t) is calculated as $S_t=(C_t+M_{t-1})$ DIV N.

6. (Currently Amended) The electrical device according to claim [[1]] 5, wherein said sequence generator comprises a windmill polynomial sequence generator.

7. (Previously Presented) An electrical device for generating a pseudo random noise (PN) output sequence (Z_t) comprising:

a sequence generator to output a plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) based on a step control signal (S_t) wherein the sequence generator comprises a windmill polynomial sequence generator;

the sequence generator having a plurality of delay elements;

a step control unit receiving a next block control signal as input; and

sum elements; where each said delay element is connected to another and two of them are additionally connected to themselves via a sum element;

a control and selection system coupled to the sequence generator adapted to select one of the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) based on a select value (M_t), wherein the select value (M_t) is provided based on a clock control value or signal (C_t) and a previously generated select value (M_{t-1}); and

a step control of the control and selection system adapted to provide the step control signal (S_t) to the sequence generator, wherein the step control signal (S_t) is provided based on the clock control value or signal (C_t) and the previously generated select value (M_{t-1}).

8. (Currently Amended) The electrical device according to claim [[1]] 7, wherein said electrical device is used in a portable device.

9. (Previously Presented) The device according to claim 8, wherein said portable device is a mobile telephone.

10. (Currently Amended) The device according to claim [[1]] 7, wherein said electrical device is used in a stationary communication device.

11.- 13. (Canceled)

14. (Previously Presented) A method of generating a PN output sequence (Z_t) comprising the steps of:

generating a plurality of sequence values (X_{2i}, X_{2i+1}) based on a step control signal (S_t), wherein the plurality of sequence values (X_{2i}, X_{2i+1}) is two, the method further comprising the steps of:

providing a select value (M_t), wherein the select value (M_t) is based on a clock control value or signal (C_t) and a previously generated select value (M_{t-1}); wherein the select value (M_t) is calculated as $M_t=(C_t+M_{t-1})$ MOD 2; and

providing the step control signal (S_t), wherein the step control signal (S_t) is based on the clock control value or signal (C_t) and the previously generated select value (M_{t-1}) and the step control signal (S_t) is calculated as $S_t=(C_t+M_{t-1})$ div 2; and

selecting one of the plurality of sequence values (X_{2i}, X_{2i+1}) on the basis of the select value (M_t); and

outputting one of said plurality of sequence values (X_{2i}, X_{2i+1}) as one element of a PN output sequence (Z_t).

15. (Previously Presented) A method of generating a PN output sequence (Z_t) comprising the steps of:

generating a plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) based on a step control signal (S_t) wherein the plurality of sequence values is N, where N is at least 3, the method further comprising the steps of:

providing a select value (M_t), wherein the select value (M_t) is based on a clock control value or signal (C_t) and a previously generated select value (M_{t-1}) and wherein the select value (M_t) is calculated as $M_t=(C_t+M_{t-1})$ MOD N; and;

providing the step control signal (S_t), wherein the step control signal (S_t) is based on the clock control value or signal (C_t) and the previously generated select value (M_{t-1}) and wherein the step control signal (S_t) is calculated as $S_t=(C_t+M_{t-1})$ DIV N; and

selecting one of the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) on the basis of the select value (M_t); and

outputting one of said plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) as one element of a PN output sequence (Z_t).

16. (Currently Amended) The method according to claim [[11]] 15, wherein said plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) is generated by a windmill polynomial sequence generator.

17. (Currently Amended) The method according to claim [[11]] 15, wherein said method is used in a portable device.

18. (Previously Presented) The method according to claim 17, wherein said method is used in a mobile telephone.

19. (Currently Amended) The method according to claim [[11]] 15, wherein said method is used in a stationary communication device.

20. (Canceled)

21. (Currently Amended) ~~The pseudo random noise (PN) generator of Claim 20.~~ A pseudo random noise (PN) generator, comprising:

a sequence generator module;

a control and select system module coupled to the sequence generator module;

the sequence generator module adapted to provide a plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) to the control and select system module based on a step control signal (S_t) fed into the sequence generator module from the control and select system module, wherein the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) is two; [[and]]

the control and select system module adapted to select one of the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) based on a select value (M_t) generated by the control and select system module wherein the select value (M_t) is generated based on a clock control value or signal (C_t) and a previously generated select value (M_{t-1});

the control and select system module being adapted to generate the step control signal (S_t) based on the clock control value or signal (C_t) and the previously generated select value (M_{t-1}), wherein, the step control signal (S_t) is calculated as $S_t = (C_t+M_{t-1})$ DIV 2; and

the control and select system module adapted to output the selected one of the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) as one element of a PN output sequence (Z_t);

22. (Currently Amended) ~~The pseudo-random noise (PN) generator of Claim 20,~~ A pseudo random noise (PN) generator, comprising:

a sequence generator module;

a control and select system module coupled to the sequence generator module;

the sequence generator module adapted to provide a plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) to the control and select system module based on a step control signal (S_t) fed into the sequence generator module from the control and select system module; wherein the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) is N, where N is at least 3;

the control and select system module adapted to select one of the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) based on a select value (M_t) generated by the control and select system module wherein the select value (M_t) is generated based on a clock control value or signal (C_t) and a previously generated select value (M_{t-1}), wherein the select value (M_t) is calculated as $M_t = (C_t+M_{t-1})$ MOD N; [[and]]

the control and select system module being adapted to generate the step control signal (S_t) based on the clock control value or signal (C_t) and the previously generated

select value (M_{t-1}); wherein the step control signal (S_t) is calculated as $S_t = (C_t+M_{t-1})$ DIV N ; and

the control and select system module adapted to output the selected one of the plurality of sequence values ($X_{Ni}...X_{Ni+N-1}$) as one element of a PN output sequence (Z_t).

23. (Currently Amended) The pseudo random noise (PN) generator of claim [[20]] 22, wherein the sequence generator module comprises a windmill polynomial sequence generator.